



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

W 26.3 : 17

WAR DEPARTMENT : : OFFICE OF THE CHIEF OF STAFF
WAR COLLEGE DIVISION, GENERAL STAFF, No. 17

STRENGTH AND ORGANIZATION
OF THE ARMIES OF
FRANCE, GERMANY, AUSTRIA, RUSSIA,
ENGLAND, ITALY, MEXICO,
AND JAPAN

MAY 23 1911

Bulletin no. 5317



WASHINGTON : GOVERNMENT PRINTING OFFICE : 1911

WAR DEPARTMENT : : OFFICE OF THE CHIEF OF STAFF
WAR COLLEGE DIVISION, GENERAL STAFF, No. 17

STRENGTH AND ORGANIZATION
OF THE ARMIES OF
FRANCE, GERMANY, AUSTRIA, RUSSIA,
ENGLAND, ITALY, MEXICO,
AND JAPAN



WASHINGTON : GOVERNMENT PRINTING OFFICE : 1911

WAR DEPARTMENT
DOCUMENT No. 385
Office of the Chief of Staff
(2)

WAR DEPARTMENT,
OFFICE OF THE CHIEF OF STAFF,
Washington, February 15, 1911.

The following data concerning the strength and organization of the armies of France, Germany, Austria, Russia, England, Italy, Mexico, and Japan are published for the information of the Regular Army and the Organized Militia of the United States.

By order of the Secretary of War:

LEONARD WOOD,
Major General, Chief of Staff.

(3)

INTRODUCTION.

A great many authorities have been consulted in the preparation of the data, and it is believed that the figures are very nearly exact. Wherever they have been available the detailed budgets and organic laws have been used as the foundation of the work. It will be noted that all the data obtained have been summed up in tables which immediately follow this introduction. It should be borne in mind, however, that the separate studies on the several countries should be carefully considered before drawing conclusions from the tables. Before introducing the tables it seems desirable to formulate a few general facts on the organization of foreign armies, as too much insistence can not be laid on the fact that a bare inspection of the tables is liable to lead to false conclusions.

Classifying the general remarks on organization under appropriate headings we have—

INFANTRY.

The real basis of the infantry organization of all foreign armies is the battalion. Except for England, the typical battalion is composed of 4 companies and has a strength on the war footing of some 20 to 25 officers and 900 to 1,100 men, counting from about 900 to 1,000 rifles. In England the battalion numbers 8 companies and counts about 860 rifles on the war footing.

In speaking of a foreign battalion it must, therefore, be borne in mind that its fighting strength is roughly equal to that of two of our battalions.

CAVALRY.

The basis of all foreign cavalry organization is the squadron. The foreign squadron numbers on a war footing from 120 to 150 sabers. Regiments contain from 3 to 6 squadrons.

It will therefore be noted that in speaking of a foreign squadron we mean a force of about one-half the strength of the United States squadron. Similarly, the cavalry regiment of foreign services is about one-half, or less, the strength of our regiments.

FIELD ARTILLERY.

The battery is usually taken as the unit of field artillery organization. For the purposes of comparison a more correct unit is the battalion.

Leaving Russia aside, it may be said that there are two great systems of field artillery organization. These may be called, naming them after their great exponents, the French and the German. The essential differences between these two systems may be summarized as follows:

The French system takes 4 guns as the firing unit, the battery, and assigns all of the ammunition which should be available *upon entry into action* to the battery; batteries count 5 officers, sometimes 4, and 170 men.

Under the German system the firing unit, battery, counts 6 guns, and only so much ammunition as is needed for the *immediate* service of the pieces is assigned to the batteries; the remainder of the ammunition which should be available *upon entry into action* being assembled in an ammunition battery (light ammunition column), which forms an *integral* part of the battalion.

In both systems the number of firing batteries in the battalion is three, the German system having an additional battery for ammunition gives that system 4 battery organizations to the battalion.

Under the German system the strength of firing batteries is about 5 officers and 150 men and that of ammunition batteries is 4 officers and 188 men. The strength of battalion staffs is not dependent upon the particular system.

Leaving aside battalion staffs it will be noted that under the French system the battalion counts about 15 officers, 510 men, and 12 guns, whereas under the German system it counts 19 officers, 638 men, and 18 guns. It is thus apparent that under the French system the battalion has $1\frac{1}{4}$ officers and $42\frac{1}{2}$ men per gun, while the German system allows $1\frac{1}{8}$ officers and $35\frac{1}{2}$ men per gun. If the strength of the ammunition columns of the army corps be considered it will be found that the slight differences in the number of officers and men required per gun under the two systems practically vanish.

The advantages and disadvantages of the two systems as set forth by the adherents of one or the other are too well known to make it necessary to repeat them here. Moreover, the arguments of those who have really studied the question have but little weight with their opponents who have equally given it serious consideration. The Russian system is obsolete, but is considered in the special study on that country.

FORTRESS ARTILLERY.

In most foreign services all artillery is on one list. That branch of artillery known as fortress artillery has no counterpart in our service. Fortress artillery garrisons the land fortresses of the country and furnishes artillery of various types to the mobile troops. The amount of mobile artillery which would be provided by the foot

artillery in war is naturally dependent upon the character of the war, whether offensive or defensive, etc. It is, therefore, impossible to say by how much the artillery with the mobile troops, as shown in the tables, would be augmented in war.

COAST ARTILLERY.

The coast artillery shown for Germany does not give a correct idea, for many of the coast fortifications of that country are garrisoned by marines.

SANITARY TROOPS.

While the number of sanitary troops shown by the tables is small for foreign armies as compared with the number maintained by the United States, it should be borne in mind that in war much of the "bearer and first-aid duty" is performed in foreign services by men drawn from and forming part of the line. Furthermore, drivers for ambulances and for other nontechnical purposes are drawn from the train. The necessity for maintaining a nucleus in peace for expansion in war does not therefore exist in the same degree in foreign countries as in the United States. Similar remarks are, however, true for services other than sanitary.

EXPANSION ON MOBILIZATION.

In all foreign countries of any consequence large numbers of *fully trained* reserves exist. These men are assigned to organizations and in those organizations complete equipment of every kind and description is so stored as to facilitate immediate issue. Every horse in civil life has its place assigned and its owner is warned as to where it is to be turned in on mobilization; the same is true of vehicles. In the formation of certain classes of trains the Government simply directs teamsters with their teams, harness, and wagons to report at previously specified places. It is thus simply a matter of hours for the great powers to mobilize.

Inasmuch as the frontiers of possible enemies adjoin their own, and the functioning of the mobilization of those enemies is equally complete, all nations on the continent of Europe maintain their cavalry and horse artillery at practically war strength and station those arms on the frontiers to secure the few hours which are necessary for mobilization.

It is thus evident that the lessons (obtained by a study of the organization of the armies of those nations which trust to preparation rather than to luck) as to the relative and actual degree of expansion of which the several arms are capable can have but little applicability to the conditions obtaining in the United States.

CONDITIONS OF SERVICE.

Aside from the features of compulsory service and the consequent existence of large masses of reserves in foreign countries, there are certain conditions of service with reference to daily duties which should be borne in mind in applying principles of foreign organization to conditions as they actually exist in the United States. In all foreign services the efficiency of peace training with respect to its effect in war is the sole object in view. But the real point is that this is put into practice and does not savor of a mere theory. Everything is, in foreign services, subordinated with absolute rigor to the tactical training of troops and the preparation by various departments and services for war. Organizations, departments, and services, as well as individuals, are judged solely from the standpoint of their preparation to at once pass to a condition of war.

Fatigue duties, guard, paper work, and kindred duties of the kind common in the United States service are, in foreign states of importance, either absolutely unknown or exist in such minor degree as to be infinitesimal. Special duties, such as officers and men for various schools, detached service of all kinds, mobilization, command and training of territorial and reserve forces, information duty, etc., are performed by officers and men who are additional to those serving with organizations. Moreover, the headquarters of such organizations have the men and officers they need as part of the headquarters of the units; accordingly company units are not drained for clerks, messengers, laborers, etc.

The absence of fatigue duties and the other facts above stated results in a condition which can hardly be appreciated in the United States, namely: If a company unit is, under the budget, entitled to 4 officers and 100 men, it has that number for daily duty. The point of this condition is apparent.

The tables showing principal data and the detailed studies are appended in the order named.

The forces of the United States have been included in the tables to facilitate comparison.

TABLE SHOWING HIGHER ORGANIZATIONS EXISTING IN TIME OF PEACE.

NO MILITIA, RESERVE, OR TERRITORIAL TROOPS ARE INCLUDED.

Country.	Army corps.	Divisions.	Cavalry divisions.	Infantry brigades.	Cavalry brigades.	Field-artillery brigades.
France.....	21	47	8	92	38	21
Germany.....	23	48	1	106	49	46
Austria.....	16	33	5	58	19	16
Russia.....	31	56	23	143	46	61
England ²	0	6	0	18	4	6
Italy.....	12	25	3	51	8	12
Mexico.....	0	0	0	0	0	0
Japan.....	0	19	0	39	2	3
United States.....	0	0	0	0	0	0

¹ Common army only.² Possibly more.³ Figures are for regulars in the British Isles only. In addition there are 14 divisions, 42 infantry brigades, 14 field-artillery brigades, and 14 mounted brigades of territorial troops in the British Isles. In India there are 9 divisions, 9 field-artillery brigades, and 8 cavalry brigades.

TABLE SHOWING PEACE STRENGTH, BY ARMS OF THE SERVICE.

ONLY OFFICERS AND MEN WITH THE COLORS ARE CONSIDERED.

Country.	Infantry.	Cavalry.	Field artillery.	Foot artillery.	Coast artillery.	Technical troops.	Train.	Sanitary troops.	Total peace strength. ¹
France ²	379,640	75,510	76,419	4,446	7,246	18,020	10,520	6,123	634,638
Germany.....	404,765	73,368	69,735	24,673	2,000	26,708	8,038	6,615	634,320
Austria ³	194,123	47,541	33,012	6,040	2,100	10,507	5,070	4,307	327,580
Russia.....	580,000	115,000	94,110	18,056	14,152	37,448	(?)	(?)	1,200,000
England ⁴	151,261	20,716	34,649	628	14,965	9,096	6,772	5,069	255,438
Italy.....	167,000	24,000	27,000	7,000	5,000	11,000	2,500	3,729	288,409
Mexico.....	20,326	7,318	1,912	(?)	(?)	657	215	(?)	31,000-32,000
Japan.....	149,402	14,585	18,918	6,889		16,727	11,427	3,484	230,000
UNITED STATES.									
Regulars ⁵	27,370	13,540	5,456	0	19,993	3,449	0	4,117	81,361
Organized militia.....	97,035	4,167	4,565	0	7,256	2,539	0	2,146	119,660
Total.....	124,405	17,707	10,021	0	27,249	5,988	0	6,263	201,021

¹ Includes miscellaneous organizations, staffs, school detachments, etc.² Includes troops stationed in Algiers and Tunis and such colonial troops as are stationed in France.³ Common army only. For Landwehr, see study on Austria.⁴ Regular army only. Indian army, colonial forces, and territorial forces are mentioned in study on England. Territorial force (British Isles) numbers 315,408. Canadian permanent force and organized militia numbers 67,037.⁵ Based on Army List, 20 November, 1910. The Porto Rican Regiment is counted as infantry. Technical troops include Engineers and Signal Corps. 8,000 recruits included in total. 5,000 Philippine Scouts are not counted.

TABLE SHOWING PERCENTAGES OF SEVERAL ARMS OF TOTAL PEACE STRENGTH.

Country.	Infantry.	Cavalry.	Field artillery.	Foot artillery.	Coast artillery.	Technical troops.	Train.	Sanitary troops.	Miscellaneous.
	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>
France.....	59.77	11.89	12.05	0.70	1.14	2.83	1.68	0.96	9.01
Germany.....	63.61	11.86	10.99	3.88	.33	4.21	1.26	1.04	2.02
Austria.....	59.34	14.51	10.07	1.84	.64	3.20	1.54	1.31	7.55
Russia.....	48.33	9.58	7.84	1.50	1.17	3.12	(?)	(?)	28.46
England.....	59.21	8.10	13.56	.24	5.85	3.56	2.65	1.98	4.85
Italy.....	57.90	8.32	9.36	2.42	1.73	3.81	.86	1.29	14.31
Mexico.....	63.50	22.86	5.97	(?)	(?)	2.05	.37	(?)	5.25
Japan.....	64.95	6.34	8.22	2.99	(?)	7.27	4.96	1.51	3.76
UNITED STATES.									
Regulars.....	33.64	16.64	6.66	0	24.57	4.23	0	5.06	9.20
Organized Militia.....	81.09	3.48	3.81	0	6.06	2.12	0	1.79	1.66
Total.....	61.70	8.80	5.07	0	13.55	2.97	0	3.11	4.80

TABLE SHOWING FIGHTING STRENGTH OF THREE ARMS ON MOBILIZATION.
EXISTING ORGANIZATIONS ONLY CONSIDERED.

Country.	Infantry rifles.	Cavalry sabers.	Field guns.	Sabers per thousand infantry bayonets.	Field guns per thousand infantry bayonets. ¹	Fully trained reserves available for passing from peace to war footing.
France ²	618,450	66,750	2,936	107.93	4.74	2,300,000
Germany.....	633,000	76,500	3,866	120.85	6.10	4,000,000
Austria ³	420,300	37,800	1,854	89.93	4.41	1,600,000
Russia ⁴	973,152	111,825	4,432	114.91	4.55	3,800,000
England ⁵	135,020	15,000	1,170	111.09	8.66	215,000
Italy.....	300,000	20,880	1,470	69.99	4.90	1,250,000
Mexico ⁶	53,760	14,016	176	260.71	3.27	None.
Japan ⁷	228,000	14,550	954	63.81	4.18	1,000,000
UNITED STATES ⁸ .						
Regulars ⁹	39,600	15,225	144	384.46	3.03	None.
Organized Militia ⁹	167,000	5,800	200	34.73	1.19	None.
Total ¹⁰	206,600	21,025	344	101.76	1.66	None.

¹ No deductions made for horse guns.

² For all existing units, for mobilization in France, see separate study.

³ Common army only. Figures are approximate. (See study.)

⁴ The peculiar situation of Russia makes it impossible for her to assemble her total force upon any one theater of war.

⁵ Regulars only. For territorial forces, extra reserves, etc., see study.

⁶ Total strength in ranks considered. The deductions which should be made for noncombatants are not accurately known. Laws for compulsory service exist and might be put into effect in war.

⁷ Japan forms a very large number of new organizations which are not considered here. Neither are the special troops in Formosa and elsewhere considered. The foot artillery mobilizes an additional number of heavy field guns, possibly 1 gun per thousand rifles.

⁸ Porto Rican Regiment and Philippine Scouts are excluded from this table.

⁹ The Infantry in the Organized Militia is obtained by reducing all incomplete regiments to the standard organizations. Separate companies and cadet corps, etc., have not been considered.

¹⁰ The Organized Militia has no complete regiments of Cavalry. The figures are obtained by multiplying the number of troops by the troop fighting strength.

All batteries of the Organized Militia are included, although 6 batteries (24 guns) have not yet reached the stage where it is deemed expedient to issue modern material. Only a few batteries are organized into complete battalions and there are no regiments.

¹¹ This assumes that organizations can be raised to the war strength. As a matter of fact trained men are not available for this purpose, and if they were clothing and equipments are not available for passing to the war strength.

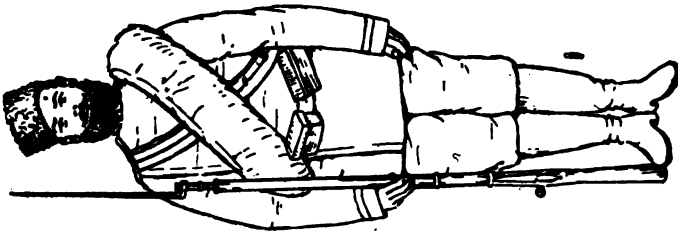
NOTE.—For probable initial mobilization see studies on several countries.

The plan on page 11 shows the above graphically.

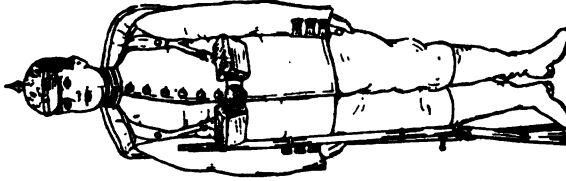
The outline drawings on pages 12, 13, and 14 give an additional graphical representation of the war strength of the several countries, considering existing *regular* organizations only. In the figures the areas are proportional to the actual war strength of the several arms.

As a matter of fact the figures for the United States are too large, for the reason that trained men are not available for passing to the war footing which the drawings represent.

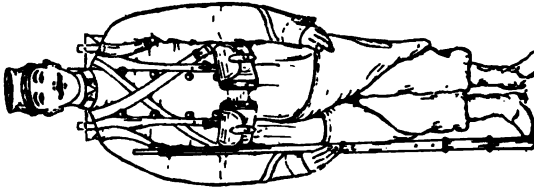
NOTE.—Due to an error; the figure on page 13 representing the Italian cavalry is too large. It should be about midway between its actual size and that for Japan.



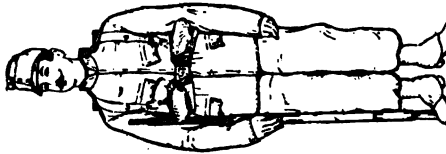
RUSSIA



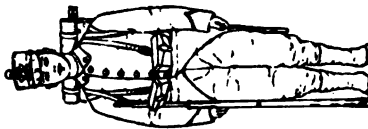
GERMANY



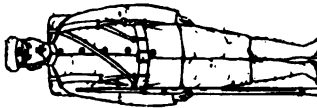
FRANCE



AUSTRIA



ITALY



JAPAN



ENGLAND

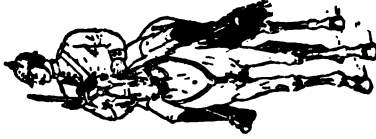


U.S.

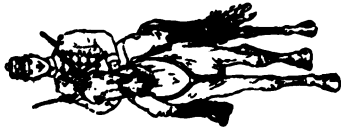
WAR COLLEGE DIVISION
GENERAL STAFF
C.H. Smith Del.



RUSSIA



GERMANY



FRANCE



AUSTRIA



ITALY



JAPAN

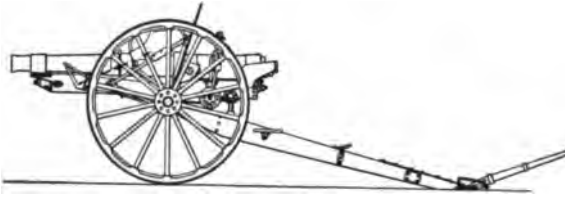


ENGLAND

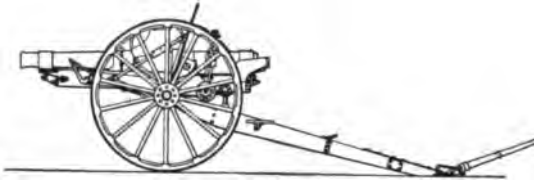


U.S.

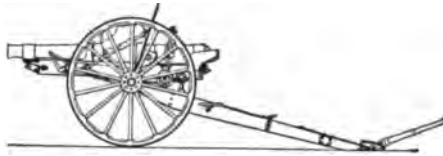
WAR COLLEGE DIVISION
GENERAL STAFF
J. H. Smith, Jr.



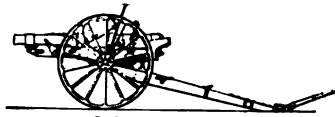
RUSSIA



GERMANY



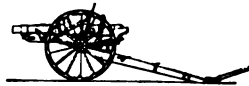
FRANCE



AUSTRIA



ITALY



JAPAN



ENGLAND



U.S.

WAR COLLEGE DIVISION GEN. STAFF
E.H. Smith Del.

FRANCE.

The French Army proper is known as the Metropolitan Army. This army is divided between France and Algiers. This study will confine itself to the Metropolitan Army with a bare mention of colonial forces.

HIGHER ORGANIZATION.

There are 20 army corps organized in peace. In addition there is one colonial army corps. Army corps usually have two divisions, in exceptional cases three. The number of corps troops varies considerably. There are 47 divisions and 92 infantry brigades; 21 field artillery brigades are distributed among the 21 corps.

There are also 8 cavalry divisions organized in peace. As a rule, the cavalry division contains 20 squadrons and 2 horse batteries. Two of the divisions depart from this rule by having 30 squadrons each. There is a total of 38 cavalry brigades.

INFANTRY.

The battalion usually has 4 companies; sometimes 3, sometimes 5 or 6, or even more. The number of battalions in regiments varies greatly. The maximum is 4 battalions to the regiment. There are 163 regiments.

Figures as to the total number of battalions vary. The budget shows 163 regiments with 124 battalion staffs missing. Taking this as a basis and adding battalions not parts of regiments gives 615 battalions; to this must be added 36 battalions of colonial troops stationed in France, making a total of 651 battalions. Von Loebell and Veltze each give 657 battalions. The difference is probably due to the fact that those authorities count native Saharian troops not considered here. As a rule, the infantry company has 3 officers and 125 men in peace.

The total infantry strength in peace is as follows:

	Battal- ions.	Officers and men.
Stationed in France:		
Metropolitan Army.....	578	311, 339
Colonial army.....	36	22, 012
Stationed in Algiers and Tunis: Metropolitan Army.....	37	46, 259
Total.....	651	379, 640

It will be seen that the total number of battalions allows an average of 31 battalions to the army corps. It is probable that in war France would organize at once new battalions to bring this up to 32. The typical war organization for infantry would then be:

Companies to the battalion.....	4	Brigades to the division.....	2
Battalions to the regiment.....	4	Divisions to the corps.....	2
Regiments to the brigade.....	2		

A total of 32 battalions to the corps.

The war strength of battalions is given by Von Loebell as 19 officers and 1,009 men. This would give a strength of infantry rifles of from 900 to 950. This would give the army corps on the type footing about 29,000 infantry rifles with a total of some 32,228 infantry soldiers. These figures are believed to be very nearly exact.

FIELD ARTILLERY.

The French field artillery was reorganized in 1909. The typical formations are:

Batteries to the battalion.....	3	Regiments to the brigade.....	3
Battalions to the regiment.....	4		

One brigade is assigned to each corps; the Sixth and Seventh Corps have brigades of 4 regiments each.

The brigade is divided between corps and divisional artillery—1 regiment to the corps and 1 to each division.

The total number of batteries for the type formation has not quite been reached.

There are 64 regiments and 5 separate battalions with a total of 689 batteries. To this must be added 3 regiments of colonial artillery stationed in France with 36 batteries, giving a total of 725 batteries. Batteries have 4 guns each. There are no light-ammunition columns.

The peace strength of batteries varies according to several schedules, viz, 3 officers, 90 men; 3 officers, 100 men; 3 officers, 120 men; 3 officers, 130 men; 3 officers, 160 men. There is a considerable number of men belonging to the regiment not assigned to batteries. In addition each regiment has a "section of workmen" numbering 17 men. The total numbers of field artillery and the peace distribution are as follows:

	Bat- teries.	Officers and men.
Stationed in France:		
Metropolitan Army.....	670	68,384
Colonial army.....	36	5,350
Stationed in Algiers and Tunis: Metropolitan Army.....	19	2,685
Total.....	725	76,419

It will be noted that the total number of batteries provides about 34½ batteries per army corps. Various authorities unite in supposing that the *initial mobilization* of France will see for the artillery a similar expansion to that already noted for the infantry (except in a smaller degree), and that the number of batteries for a mobilized corps will be 36. The number of guns per corps will thus be 144—the same as the German corps except for heavy guns.

It is possible that the fortress artillery would mobilize some mobile batteries, but there are no definite data.

The war strength of batteries is 4 officers, possibly 5, and 170 men, except that mountain batteries have 200 men.

Mountain batteries have 6 guns in war.

FOOT ARTILLERY.

All officers of artillery, including field artillery, are on one list. Foot artillery is divided into two branches: Coast artillery and fortress artillery. The latter garrisons the land fortifications. It is believed that, in certain cases, a part of the fortress artillery may be used with the mobile forces.

There are in all 11 regiments with 89 batteries in France and 2 battalions with 8 batteries in Algiers and Tunis.

Separating the two branches, we have:

Fortress artillery.—There are 47 batteries in France with none in Algiers and Tunis. The peace strength of batteries is 3 officers and 110 men.

The total strength of the fortress artillery is about 4,446 officers and men. The war strength is not definitely known, but is probably double the peace strength.

Coast artillery.—There are 42 batteries in France and 8 in Algiers. The peace strength of batteries in France is 3 officers and 110 men; in Algiers and Tunis, 3 officers and 200 men. The total is as follows:

	Bat- teries.	Officers and men.
France.....	42	3,985
Algiers and Tunis.....	8	3,261
Total.....	50	7,246

The war strength of batteries is not definitely known. It may be noted, however, that organizations in Africa are somewhat under war strength, though they are nearer that strength than organizations in France. It is, therefore, safe to say that the average war strength of batteries of coast artillery is at least 3 officers and 200 men.

Artillery workmen.—The foot artillery has sections and companies of workmen aggregating 2,321 officers and men. It is not known just how these are divided between the coast and fortress artillery; they are probably about equally divided.

CAVALRY.

The typical formations of cavalry are: Five squadrons to the regiment; 2 regiments to the brigade; 2 brigades to the division. The number of brigades and divisions has already been given.

There are 79 regiments in France, 10 in Africa, and also some miscellaneous organizations.

The peace strength of squadrons is 5 officers and 150 men, 141 of whom may be counted as sabers.

It is said that the actual strength is somewhat below the authorized strength.

The total strength and distribution of the cavalry in peace is as follows:

	Squadrons.	Officers and men.
France.....	395	65,910
Algiers and Tunis.....	50	9,600
Total.....	445	75,510

The war strength of squadrons is 5 officers and 160 men, the strength in sabers being about 150. In war one squadron of each regiment is left behind as a depot squadron.

TECHNICAL TROOPS.

There is no division, as in the United States, between signal troops and engineers. All technical troops are known as engineers.

There is some question as to the organization of engineers in so far as concerns the numbers of companies and battalions. The budget shows 7 regiments and 1 separate battalion. The number of companies per battalion varies from 3 to 7. The total number of companies is probably 101.

The peace strength of companies varies; the strongest companies number 4 officers and 160 men.

The total strength and its distribution is as follows:

	Officers.	Men.
France.....	504	16,220
Algiers and Tunis.....	31	1,800
Total.....	535	18,020

The war strength of the major portion of engineer companies is 4 officers and 252 men.

TRAIN.

The train troops are organized into "squadrons." Each squadron contains 3 companies. There are 20 "squadrons" stationed in France and 12 separate companies in Algiers and Tunis.

The normal peace footing of companies is 4 officers and 87 men.

The total peace strength and its distribution is as follows:

	Officers.	Men.
France.....	360	7,770
Algiers and Tunis.....	45	2,750
Total.....	405	10,520

In war each "squadron" forms additional companies. The total war footing is not accurately known.

SANITARY TROOPS.

The authorized peace strength of the medical department is 1,475 officers and 6,123 men.

The budget for 1910, however, only allows 1,462 officers.

The distribution is as follows:

	Officers.	Men.
France.....	952	3,888
Algiers and Tunis.....	510	2,235
Total.....	1,462	6,123

VETERINARIANS.

The peace footing is 467 officers.

REMARKS ON TROOPS.

In addition to the organizations noted above there are a great many special organizations, schools, etc.

In addition there are, of course, administrative officers, general staff, etc. There are, for example, 1,345 officers of the intendance, of whom 1,050 are in France.

TOTAL PEACE STRENGTH.

The total peace strength of the French Army, exclusive of colonial troops but including gendarmes and "republican guards," is as follows:

Officers.....	29,209
Men.....	577,303

Of these 26,368 officers and 507,764 men are stationed in France. There are, in addition, 2,083 officers and 26,043 men of the colonial army stationed in France. This brings the total force stationed in France up to 28,451 officers and 533,807 men. The grand total of the Metropolitan Army and the colonial troops stationed in France is 31,292 officers and 603,346 men, including gendarmes and republican guards. There are, in addition, a great many reserve officers, but the exact numbers are unknown.

It is to be noticed that the actual number of men with the colors in France is less than that in Germany. This, together with certain conditions of service and the fact that there is sometimes a hiatus between the discharge of one class and the receipt of another, results in France's total *trained* strength being inferior to the German.

On the other hand, it is to be noted that, presumably on that account, France maintains more officers in peace than does Germany.

TOTAL WAR STRENGTH.

The organization of the maximum mobilization of France can not be given with any degree of accuracy. The sum total of trained men which she is able to mobilize amounts to about 3,000,000 men; possibly a little more.

It is probable that her *initial mobilization* would be devoted to bringing her army corps and cavalry divisions up to the typical formations already mentioned.

This assumption would give a strength of the three arms *in France*, on the *initial* mobilization, of:

Battalions of infantry	640	Batteries	736
Squadrons of cavalry	395		

The fighting strength of the three arms on *initial* mobilization would thus be:

Infantry rifles	518,000	Field guns	2,944
Cavalry sabers	59,250		

The above estimate is a minimum. It is possible that even the *initial* mobilization would see a considerable increase in infantry and artillery over the figures given.

COLONIAL TROOPS.

Besides the troops already mentioned, there are about 49,500 colonial troops. About 14,500 of these are Europeans and the remainder are natives. These troops are stationed in various colonies, such as Indo-China.

They are organized as follows:

Battalions of infantry	59	Squadron of cavalry	1
Batteries of artillery	31	Companies of engineers	3

In addition to the 49,500 just mentioned, there appear to be about 3,723 Europeans and 8,254 natives in the forces of Madagascar.

CONDITIONS OF SERVICE.

The Metropolitan Army alone is considered.

Service is compulsory, and liability extends from the twentieth to the forty-fifth year of the citizen's age.

Service with the colors is two years for all arms. After serving with the colors the men pass into the reserve of the active army, in which they serve for 11 years, during which they are subject to two periods of instruction, one for 23 days, the other for 17 days. From the reserve of the active army the men pass to the "territorial army," in which they serve for six years, subject to one period of seven days' instruction. The final service is with the "reserve of the territorial army"; this service is for six years; the men receive no training, but are subject to muster.

GERMANY.

The German Army as now organized in peace consists of 23 army corps and 1 cavalry division, besides certain special troops, schools, recruiting districts, etc.

The organization into armies is provided for by existing headquarters and staffs of six so-called inspection districts.

Normally the army corps is composed of 2 infantry divisions and certain train troops and other auxiliaries. There are now, however, 2 corps having 3 divisions each, making a total of 48 divisions and 1 cavalry division.

While the cavalry divisions which would mobilize in war are not all formed in time of peace, there exist certain staffs for such divisions and they are assembled for instruction from time to time.

The division in peace varies somewhat in organization. There is, however, a definite normal division, and such divisions would be the rule in war. The reason for the variations in time of peace is found in the fact that the strength of the army is established by a law operative over a period of five years. Each periodical law increases the strength of the army, but the staffs are not always created at the same time as the troops. It thus happens that each period sees certain troops for whom staffs do not exist for the formation of the type units. As a rule each periodical law, however, establishes the necessary staffs for those units which were created by the preceding law.

INFANTRY.

The typical infantry formations are as follows: Four companies to the battalion, 3 battalions to the regiment, 2 regiments to the brigade, 2 brigades to the division, with one of the divisions in a corps having an extra battalion of sharpshooters (Jagers or Schutzen).

There are 106 infantry brigades with 216 regiments. There are 633 battalions of infantry. The strength of battalions in peace is either 18 officers and 571 men, or 22 officers and 641 men, depending upon circumstances. The infantry numbers in peace, including machine-gun detachments, 13,071 officers and 391,694 men. The strength of the battalion in war is variously estimated at from 980 rifles to 1,000 rifles. It is probable that the war-strength battalion is able to count 25 officers and 1,000 rifles and that the ration strength is about 1,100 officers and men.

ARTILLERY.

All officers of artillery are on one list. The artillery is divided into field and foot (fortress) artillery.

The fortress artillery garrisons the land fortresses, such as Metz, etc., and furnishes the heavy field and siege artillery needed with the mobile army. Seacoast fortifications are under the navy, but at present the Second Foot Artillery Regiment is serving in Danzig as coast artillery.

FIELD ARTILLERY.

The typical field artillery formations are as follows: Three batteries to the battalion, 2 battalions to the regiment, 2 regiments to the brigade. The battery has 6 guns. There are 46 field artillery brigades and 95 regiments. There are 583 batteries.

The peace strength of batteries varies according to circumstances, as follows: Four officers and 128 men, 4 officers and 115 men, 4 officers and 102 men.

The field artillery numbers in peace 3,084 officers and 66,651 men. The battery in war counts 5 officers and 150 men.

Each battalion in war has a light-ammunition column of 4 officers and 188 men.

The total war strength of a battalion is thus about 660 officers and men.

FOOT (FORTRESS) ARTILLERY.

The organization of the foot artillery varies greatly. It may be said, however, that the typical formations are as follows: Four batteries to the battalion, 2 battalions to the regiment.

There are 18 regiments, 41 battalions, 169 batteries.

As already stated, 1 regiment (3 battalions) is serving as coast artillery.

The peace strength of a battalion is usually about 21 officers and 571 men.

The foot artillery numbers in peace 1,008 officers and 25,665 men.

The war strength varies according to the service. For a heavy howitzer battalion the strength in officers and men is 1,230, including its light-ammunition column.

As a rule 1 battalion of heavy field howitzers is, in war, assigned each army corps. Each of these battalions consists of 4 batteries of 4 guns each.

Heavy field mortar batteries and siege batteries are assigned according to particular necessities.

CAVALRY.

The typical formations of cavalry are as follows: Five squadrons to the regiment, 2 regiments to the brigade. There are 1 cavalry division, 49 brigades, 103 regiments, 510 squadrons. The squadron should not be confused with the squadron in the United States.

In peace the regiment has either 25 officers and 725 men, or 25 officers and 695 men,

The cavalry numbers in peace 2,585 officers and 70,783 men.

The squadron on a war footing numbers 6 officers and, probably, 172 men, of whom 150 are counted as sabers.

It is probable that the regiment only mobilizes 4 squadrons, the fifth squadron being left behind as a depot squadron.

TECHNICAL TROOPS.

It is necessary to consider engineer and signal troops together if we wish to make any comparison between these organizations and those of the United States.

Germany divides troops of this class into pioneer troops and "Verkerstruppen," literally communication troops. The latter are further subdivided, for example, railroad troops, telegraph troops, airship troops, etc.

These troops number altogether in peace 1,030 officers and 25,678 men.

These troops are capable of almost indefinite expansion in war. It may be noticed that the normal composition of pioneer companies serving with divisions on a war footing is 270 men.

SUPPLY TRAIN.

Each battalion is composed of 3 companies and a bakery detachment.

There are 23 battalions. The peace strength of a battalion is 14 officers and about 349 men.

The total peace strength is 346 officers and 7,692 men. The train can be almost indefinitely expanded in war.

SANITARY TROOPS.

The medical department is composed in peace of a total of 2,288 officers and 4,327 men.

It is impossible to give any accurate idea of the strength of the sanitary troops in war, except for those serving with the army corps.

REMARKS ON TROOPS.

In addition to the troops noted above, there are a great many special organizations, schools, castle guards, etc.

In addition there are, of course, administrative officers, general staff, etc.

VETERINARIANS.

The peace footing is 761.

TOTAL NUMBER OF OFFICERS.

The total number of officers, exclusive of medical officers and veterinarians, on a peace footing is 25,722. These are divided among grades as follows:

General officers.....	389	Captains.....	6,535
Regimental commanders (colonels).....	668	Lieutenants.....	15,554
Majors.....	2,356	Special grades (usually high)....	220

A noticeable feature of the German officer corps is the number of nonregimental officers—2,916.

All detached service is performed by extra officers. An organization has the officers to which it is entitled constantly with it.

In addition to the above there are about 25,000 reserve officers.

TOTAL PEACE STRENGTH.

The total peace strength amounts to 622,320 officers and men. To these there should be added from 10 to 12 thousand "Einjahrigfreiwilligers." These men serve for one year, defraying their own expenses.

TOTAL WAR STRENGTH.

The organization of Germany's maximum mobilization can not be given with any degree of accuracy. The sum total of *trained* men which she is able to mobilize amounts to 4,610,000.

What is believed to be a conservative estimate of her *initial* mobilization is as follows:

Battalions of infantry.....	962	Batteries (light).....	828
Squadrons of cavalry.....	528	Batteries (heavy).....	92

The fighting strength of the three arms on the *initial* mobilization would thus be:

Infantry rifles.....	962,000	Field guns.....	5,336
Cavalry sabers.....	79,200		

COLONIAL TROOPS.

No German troops of the army proper serve outside the home country in time of peace.

Exact data as to the numbers of colonial troops are not available, but it is a conservative estimate that such troops total over 10,000 officers and men.

CONDITIONS OF SERVICE.

Service is compulsory and liability extends from the seventeenth to the forty-fifth year of the citizen's age.

The total period of service is divided into numerous categories of which only the more important will be mentioned.

Service with the colors is three years with the cavalry and horse artillery, and two years for other arms.

After serving with the colors, the men pass into the reserve, in which they serve 4 years and 6 months or 5 years and 6 months, according to the arm of the service. During their service the men of the reserve may be called out for two periods of training of 8 weeks each. In practice the majority of the reserve is seldom held longer than 28 days for each period.

Passing from the reserve the men go into various other categories. The characteristic of this transition is the constant diminution of the period for which the men are liable to be called out for peace training. This diminution is continued until reaching the "Landstrum"; they are only liable for call in war. Germany has more men annually arriving at the age of military service than she needs for duty with the colors. Somewhat over one million men annually present themselves, of whom a little more than 250,000 are actually drafted for duty with the colors.

NOTE.—The new "Quinquennate" for 1911-1915 provides for increases as follows: 1 battalion of infantry, 112 machine-gun companies; 2 field artillery brigade staffs, 2 field artillery regimental staffs, 4 field artillery battalion staffs, 18 field batteries, 3 foot artillery brigade staffs, 6 foot artillery regimental staffs, several battalion staffs, and 15 foot batteries. In addition, there are certain increases in other staffs and technical troops.

AUSTRIA-HUNGARY.

The dual monarchy of Austria-Hungary maintains three separate armies supported by the Empire, by Austria, and by Hungary, respectively.

These armies are known as the common army, the Austrian (Cisleithane) Landwehr, and the Hungarian Landwehr, respectively. The two Landwehr armies differ, however, from the Landwehr of other countries in that they are maintained with the colors in time of peace. At the same time their organization is somewhat miscellaneous, and it is believed that to gain a clear idea of the Austrian system it is necessary to consider the common army separately from the two Landwehr armies. To save space all the Landwehr troops are grouped together. It may also be noted that the common army is known as the first line, and the two Landwehr armies as the second line.

HIGHER ORGANIZATION.

In the common army there are 16 army corps with 33 divisions. There are 15 divisions in the Landwehr. There are 5 cavalry divisions organized in peace; they are attached to army corps and all belong to the common army.

The common army has 58 brigades of infantry and 19 brigades of cavalry. In the Landwehr there are 30 brigades of infantry and probably 6 of cavalry. There are 16 brigades of field artillery in the common army, organized in peace.

The above is believed to be correct, although some authorities give a greater number of brigade organizations for infantry and cavalry.

INFANTRY.

The formations of infantry vary, but it may be said that the typical formations are 4 companies to the battalion; 4 battalions to the regiment; 2 regiments to the brigade; 2 brigades to the division. In the common army there are 110 regiments with 467 battalions. In the Landwehr there are 68 regiments with 214½ battalions.

The strength varies greatly in peace. Some of the Landwehr companies have as low as 5 officers and 50 men. For the common army the usual strength is 5 officers and 92 men to the company.

The total peace strength is as follows:

	Officers.	Men.
Common army.....	9,810	184,313
Landwehr.....	4,009	52,581
Total.....	15,419	236,894

In war the battalion numbers about 1,000 officers and men, counting about 900 rifles. The typical army corps thus has a war strength of about 28,800 infantry rifles.

FIELD ARTILLERY.

The Austrian field artillery is reported by Veltze to be in a transitory stage. It is known that it has recently been rearmed and the current Austrian periodicals point toward a reorganization and considerable increase. The latest budget is not, however, available and there are no reports on file giving any definite clue as to what is to be done regarding reorganization.

The present organization is as follows:

	Brigades.	Regiments.	Battalions.	Batteries.
Common army.....	16	62	131	809
Landwehr.....			8	16

The peace strength varies greatly; the usual battery strength is 5 officers and 90 or 109 men. In addition to the battery strength regiments have a reserve of men.

The total peace strength is as follows (minimum figures):

	Officers.	Men.
Common army.....	1,728	31,284
Landwehr.....	120	1,840
Total.....	1,848	33,124

It is understood that in war the regiments mobilize a large additional number of batteries, but no definite information is available.

The entire subject of the war strength of Austrian artillery is little understood by foreigners. The United States military attaché reports that he has been unable to get any reliable detailed information on this subject. The opinion is ventured that the war organization corresponds, so far as concerns artillery, to that of Germany.

This would give 3 batteries and a light ammunition column to the battalion, the strength of batteries being about 150 men. This would require the mobilization of an extra battery for the majority of battalions and the division of the existing regimental ammunition column into two columns, one for each battalion of the regiment.

As to the number of pieces in the battery on a war footing the consensus of opinion seems to point to 6. With the old material it was 8 with 6 officers and 190 men.

It is believed that the "transitory state" already mentioned is responsible for the lack of reasonably accurate information on this subject.

FORTRESS ARTILLERY.

The fortress artillery is divided between coast artillery and the garrisons of land fortresses as distinguished from coast fortifications. It is all part of the common army. The total is 6 regiments with 19 battalions and 72 batteries. The total number of officers and men on a peace footing are 383 and 7,757, respectively.

Dividing them by the character of their service we have:

COAST ARTILLERY.

There are 19 companies serving as coast artillery.

Definite data as to the total peace strength of these troops are not available. Estimating the strength as slightly greater than that of other fortress organizations would give 100 officers and 2,000 men.

The war strength is probably 250 men per company.

FORTRESS ARTILLERY (LAND).

Admitting the strength assigned the coast artillery the total peace strength of the 53 companies (4 regiments) of fortress artillery is 283 officers and 5,757 men.

This artillery garrisons the various land fortifications and furnishes siege and heavy field artillery as well as, probably, some machine guns, to the mobile forces.

The war strength of batteries is 6 officers and about 250 men.

It seems probable that in any war, except with Russia, in which Austria might engage, the major portion of the fortress artillery proper would be used to supplement the shortage of field artillery in the *Landwehr*. Ample material is believed to be in the hands of the fortress artillery for that purpose. (See Veltze.)

CAVALRY.

The typical formations of cavalry are: Six squadrons to the regiment, 2 regiments to the brigade, 2 brigades to the division.

There are 19 brigades with 42 regiments and 252 squadrons in the common army, and 6 brigades with 16 regiments and 101 squadrons in the Landwehr. The peace strength of squadrons in the common army is nominally 5 officers and 171 men; some of the men are, however, detached to form pioneer and other detachments at headquarters.

The strength of squadrons of Landwehr is 5 officers and 78 men for the Austrian and 4 officers and 69 men for the Hungarian.

Total strength and distribution are as follows:

	Officers.	Men.
Common army.....	1,671	45,870
Landwehr.....	604	7,913
Total.....	2,275	53,783

The war strength of squadrons, both armies, is 5 officers and 171 men, counting 150 sabers. Each regiment also forms a reserve squadron and a depot squadron; cadres exist for these in peace.

TECHNICAL TROOPS.

These troops have a variety of organizations. The most important are the pioneer battalions. There are 15 of these with 5 companies each and cadres for reserve companies.

All technical troops belong to the common army. The total of all technical troops is as follows: 562 officers, 9,945 men.

The peace strength of pioneer companies is 5 officers and 112 men.

In war these troops are enormously expanded. In the first place each battalion of pioneer troops forms 2 extra companies, then each company is raised to about 5 officers and 250 or more men.

TRAIN TROOPS.

There are 16 so-called divisions (battalions). They all belong to the common army.

The total is 444 officers and 4,626 men.

These troops are capable of enormous expansion in war, but no definite data are available.

SANITARY TROOPS.

The peace strength is 1,247 officers and 3,060 men, all belonging to the common army.

The war strength is not known.

REMARKS ON TROOPS.

In addition to the troops noted there are special formations, schools, staffs, etc.

TOTAL PEACE STRENGTH.

The total peace strength is 31,328 officers, including a certain number of officials classed as officers, and 363,919 men.

TOTAL WAR STRENGTH.

It is impossible to give any definite accurate statements as to Austria's maximum mobilization or even as to her initial mobilization. Estimates as to the total number of fully trained men subject to call vary.

Following the conservative plan which has been used in estimating the strength of other countries, it may be said that Austria has 2,000,000 fully trained men subject to call.

Assuming that the *initial* mobilization would be confined to raising *existing* organizations to a war footing we would have:

Common army:		Landwehr:	
Infantry battalions.....	467	Infantry battalions.....	214½
Batteries field artillery.....	309	Batteries field artillery.....	16
Squadrons cavalry.....	252	Squadrons cavalry.....	101

This would give the following fighting strength of the three armies:

Common army:		Landwehr:	
Infantry rifles.....	420,300	Infantry rifles.....	192,850
Field guns.....	1,854	Field guns.....	96
Cavalry sabers.....	37,800	Cavalry sabers.....	15,150

It will be noted that the above figures do not consider the use of any fortress artillery as field artillery, nor do they consider the formation of additional organizations of any arm.

It is not certain that Landwehr organizations mobilize at the strength of regulars.

All in all, the figures for the common army may be considered reliable, while those for the Landwehr, so far as concerns war organization, are but little more than an incomplete guess.

CONDITIONS OF SERVICE.

Service is compulsory and liability extends from the nineteenth to the forty-second year of the citizen's age.

Service is divided into numerous categories. The most important of these are as follows: Common army, 3 years with the colors and 7 years in the first reserve; during the latter period the men are subject to call for 3 periods of training of 4 weeks each. Landwehr, 2 years with the colors and 10 years in the first reserve; during the latter period the men may be recalled for instruction under varying and complex rules.

RUSSIA.

It is difficult to make a satisfactory brief résumé of the Russian Army. This is due to several causes. In the first place, the vast extent of Russia's territory, the internal conditions of the nation, and the character of the countries adjoining her, make it necessary for her to maintain what amounts to three separate armies, namely, the Army of Europe and the Caucasus; the Army of Central Asia; the Army of Siberia and Eastern Asia. Then the troops are divided up into numerous categories, some of which are most unusual and about which there is little information that can be depended upon. For example we find, "active troops," "reserve troops," "2d reserve troops," and "fortress troops."

For these reasons it is thought well to confine this study to the active troops and to the fortress troops.

HIGHER ORGANIZATION.

The entire territory is divided into 13 districts, each district having a commander who presumably commands the forces mobilized in the district in war.

There are 31 army corps, with 56 divisions organized in peace. In addition there are 23 cavalry divisions organized in peace. The cavalry divisions are usually assigned to army corps in peace. The cavalry division usually contains 24 squadrons with 2 horse batteries.

The organization of the army corps varies in peace, but usually has two divisions.

The strength of the army corps at full war strength is probably 27,000 infantry rifles, 1,800 cavalry, and 112 guns, with a varying additional number of heavy guns.

INFANTRY.

If the infantry can be said to have any typical formations, they are as follows: Four companies to the battalion; four battalions to the regiment; two regiments to the brigade; two brigades to the division.

There are, however, regiments with 1, 2, or 3 battalions, and battalions with 5 or more companies. There are 143 brigades with 281 regiments in the active army. The total number of battalions in the active army is 1,116.

Of fortress troops there are 44 infantry battalions. The infantry battalion numbers in peace, on the average, about 500 officers and men.

The total peace strength of the infantry of the active army and of the fortress troops is, therefore, as follows:

	Officers and men.
Active army.....	558,000
Fortress troops.....	22,000
Grand total.....	580,000

The war strength of the battalion is, probably, 872 rifles with a total of 1,000 officers and men.

ARTILLERY.

The artillery is divided between the artillery of the active army, and that of the fortress troops, as well as the categories not considered here.

The batteries of the fortress troops are further divided into "sortie" batteries, "siege" (including heavy field batteries) batteries, and "fortress batteries." Of the latter class some are serving as coast artillery. Separating these various classes we have:

FIELD ARTILLERY.

The Russian artillery organization is peculiar. Batteries contain 8 guns and are commanded by lieutenant colonels. As the battery is so organized as to be divisible into two self-sustaining "half batteries," it may be said that the Russian "battery" is in reality a battalion. Two or three batteries form a group (regiment), and two or three groups a brigade, commanded by a general officer.

As a rule there are 6 batteries (48 guns) in one of the divisions of a corps and 8 batteries (64 guns) in the other division.

Horse artillery batteries have 6 guns. There are 61 artillery brigades in the active army, with 199 "groups" (regiments).

The total number of batteries (battalions) in the active army is 549.

In the fortress troops there are 5 "sortie batteries," giving a total of 554 batteries (battalions).

The battery in peace has 6 officers and 164 men.

The total peace strength of the field artillery is therefore as follows:

	Officers and men.
Active army.....	93,260
Fortress troops.....	850
Grand total.....	94,110

The war strength of batteries is at least 6 officers and 227 men, possibly more.

SIEGE (HEAVY FIELD) ARTILLERY.

There are 58 batteries, all of which are carried as a part of the fortress troops. The peace strength is 3 officers and 119 men, giving a total of some 7,076 officers and men.

The war strength of these batteries is probably 3 officers and 238 men.

FORTRESS ARTILLERY.

There are 264 companies of fortress artillery. Of these 116 are serving at fortresses situated on the seacoast; for the purposes of this paper it is assumed that these 116 companies are all serving as coast artillery, although such is not believed to be the case.

The peace strength of these organizations varies. An average is probably 3 officers and 119 men per company. We thus have:

	Officers and men.
Fortress artillery.....	18,056
Coast artillery.....	14,152

It is to be remembered that the figures given for coast artillery are the *maximum*.

The war strength of organizations of fortress and coast artillery is not definitely known, but probably averages 3 officers and 238 men per battery.

CAVALRY.

The cavalry organizations vary greatly. The regiment contains from 2 to 6 squadrons—6 being the most frequent number. As already stated there are 23 cavalry divisions organized in peace.

There are 745½ squadrons in the active army. The strength of the squadron varies greatly. The *maximum* average is probably 5 officers and 150 men. There are thus in the active army in peace about 115,000 officers and men. There are no cavalry organizations in the "fortress troops."

The war strength of the squadron probably averages 5 officers and 163 men, counting 150 sabers.

TECHNICAL TROOPS.

These troops comprise engineer and signal troops. In the active army there are 266 companies of these troops. In the "fortress troops" there are 36 companies.

In the active army the technical troops are usually organized into battalions of 4 companies each. They are further organized into 17 brigades of a varying number of battalions.

In peace the strength of organizations varies very greatly. As an average 4 officers and 120 men per company is believed to be about

correct. This would give a total for the active and fortress troops of 37,448 officers and men. The war strength varies also. A *minimum* average is about 4 officers and 200 men.

SUPPLY TRAIN.

On a peace footing there are 5 battalions of 4 companies each in Europe, and there are 2 companies in Siberia. The peace strength of these organizations is not known. It is probably very large, considering the number of organizations, as on mobilization they furnish a complete supply train for each army corps.

SANITARY TROOPS.

The sanitary officers have no military rank, but instead have civil rank. The total peace strength of surgeons is 3,500; this includes surgeons of classes of troops other than those considered here. The peace strength of enlisted sanitary troops is not known.

The war footing of sanitary troops is not known.

GENERAL REMARKS ON TROOPS.

It is to be noted that there are many officers of infantry, cavalry, and artillery not included in the above. Neither are the men of various staffs, etc., included.

Neither are the staff officers included. There are also a great many special formations for schools, police, etc., concerning which no accurate information is available.

TOTAL PEACE STRENGTH.

The total peace strength amounts all told to about 1,200,000 officers and men.

TOTAL WAR STRENGTH.

The total number of *trained* men subject to call amounts to 5,000,000.

The organization of these troops probably would follow the same proportions as those in the active army raised to a war footing.

The vast extent of Russia, the semicivilized condition of many of her subjects and of more of her neighbors, and the peculiar political difficulties of much of her interior, combine to render it very problematical as to the number of troops Russia can mobilize on any one theater of war. Some authorities maintain that the difficulties cited limit the number which she can mobilize on any one theater to about 1,000,000 trained men. If, however, we remember that in the war with Japan, Russia mobilized and had in the field at the end of the war a million men and that the theater of war was only to be reached

by a single line of railway several thousand miles in length, it seems that on a conservative estimate Russia could mobilize 2,000,000 *fully trained* men upon her European frontiers.

CONDITIONS OF SERVICE.

Military service is obligatory. Passing from service with the colors the men pass into various reserves.

On account of the great variety of reserves, liability to call, etc., no further statements can be given in a brief form.

NOTE.—Since the above was prepared brief notice has been received stating that the reorganization of the Russian Army has been completed. This reorganization had to do chiefly with doing away with the numerous miscellaneous organizations and incorporating the men in the army proper.

According to this information, the war strength of infantry and field artillery is somewhat greater and that of cavalry is somewhat less than the figures given in this study. This information is not in sufficient detail to justify forming new tables, etc.

ENGLAND.

The military forces of England fall under several categories. The principal of these are: The regular forces, and the territorial forces. The regular forces are again divided into British forces—Indian forces, and colonial forces. Exact data are not available for the native Indian forces; accordingly, this study will not take those forces up in the detail devoted to other forces.

In addition to the forces already enumerated certain of the colonies, Canada, for example, maintain considerable forces of militia. As has already been indicated, exact data as to the number of men of the several arms are lacking for some of the various categories. Moreover, it is thought that the purposes of this study would be served by detailed statements of the British forces (regular). However, as the territorial forces are considerable and correspond more nearly to our militia forces than any other body maintained by a first-class power, a brief statement will be made of those forces.

The territorial force is not yet completely filled up, but the latest returns of 1910 as compared with those of 1909 indicate that the maximum strength will be reached in the near future. Accordingly, the authorized strength forms the basis of the detailed statements concerning the territorial forces.

HIGHER ORGANIZATION.

The British forces (regular) within the British Islands are organized into six divisions and four cavalry brigades.

The territorial force is to have higher organizations as follows: Fourteen divisions (similar to those of the regulars), 14 mounted brigades.

The forces in India, including regular and native, are divided into two armies. These armies contain a total of 9 divisions and 8 cavalry brigades.

The division in India is smaller than is usually the rule (about 13,000).

REGULAR FORCES.

INFANTRY.

The battalion consists of 8 companies. Regiments exist, but as they are not used in practice they will not be considered here.

The battalion is commanded by a lieutenant colonel, the company by a major or captain.

Four battalions form a brigade, as a rule. There are 3 brigades to the division. There are 18 brigades stationed in the British Islands (it appears, however, from the estimates that only 17 brigades are provided with brigadier generals, commanding). There are 27 brigades in India, counting native troops. There are 82 battalions stationed in the British Islands, 23 in the colonies other than India, and 52 in India, giving a total of 157 battalions of regular infantry. Battalions vary in strength according to stations, etc. At home the battalion usually number 24 officers and 777 men; in the colonies 28 officers and 904 men; in India 29 officers and 1,004 men.

Cadres also exist for so-called "reserve battalions." There are 103 of these battalions, 27 of which are termed "extra reserve." The function of the reserve battalion, proper, is to supply men to fill up vacancies in the battalions. The "extra reserve" battalions may, if necessary, be mobilized in war—probably utilized on lines of communications.

The peace strength of the ordinary reserve battalion is 8 officers and 90 men, for the extra reserve 6 officers and 30 men.

The total peace strength of infantry is as follows:

	Officers and men.
British Islands.....	76,032
Colonies.....	21,587
India.....	53,642
Total.....	151,261

The numbers for the British Islands include 1,368 officers and men for duty with the territorial forces; reference will be made to these and others for the various branches later on. The total number of infantry officers is 4,906.

The war strength of the battalion is 29 officers and 955 men, with an additional officer and 90 men left at the immediate base to fill up the first vacancies. Deducting attached sanitary troops, teamsters, etc., indicates the number of rifles available for the battalion firing line as about 860.

ARTILLERY.

The British artillery (all branches) is known as "The Royal Regiment of Artillery." The "regiment" is divided into "The Royal Horse Artillery," "The Royal Field Artillery," and "The Royal Garrison Artillery." The mistake is frequently made of considering the garrison artillery as coast artillery. As a matter of fact, a large portion of "The Royal Garrison Artillery" is field artillery. The explanation for this state of affairs is found in the well-known tenacity with which the English cling to traditions.

In the following the artillery has been grouped where it belongs. Even so, it is believed that too much has been assigned the coast

artillery, as no account is taken of such of the garrison artillery as is serving as fortress artillery (land) or as, for example, legation guards at Peking, China.

REGULAR FIELD ARTILLERY.

The English field artillery, as is the case with their artillery in general, has a peculiar organization.

Batteries are commanded by majors, and contain 6 guns, except that heavy field gun batteries only have 4.

Batteries are grouped in "brigades" (battalions), commanded by lieutenant colonels. Here again there is an exception, as the heavy gun batteries are not "brigaded." "Brigades" are grouped under a general officer to form divisional artillery. Brigades are composed of 3 batteries, except for the horse artillery and for howitzers, in which 2 batteries form the brigade.

The group of "divisional artillery" contains: Four brigades (1 of which is equipped with howitzers), and 1 heavy gun battery—a total of 70 guns per division. Howitzer brigades are being increased to 3 batteries; this will give 76 guns per division. Cavalry divisions have 2 brigades, or a total of 24 guns.

There are in the British Islands 6 organized groups of "divisional artillery." The number of such groups in India is not definitely known, but is probably 9, corresponding to the number of divisions.

There are 14 "brigades" of horse artillery organized in time of peace, comprising 28 batteries. These batteries are stationed as follows:

	Batteries.
British Isles.....	14
Colonies other than India.....	3
India.....	11

In addition there is 1 "depot" and 1 "riding establishment," besides cadres of officers and men for forming 9 ammunition columns.

The peace strength of batteries varies according to three schedules, viz, higher, 5 officers and 170 men; lower, 5 officers and 139 men; Indian, 5 officers and 175 men. There are 6 batteries on the higher establishment, 8 on the lower, and 11 on the Indian. Batteries in colonies other than India are on a special establishment which is about the same as the Indian.

The "depot" contains 5 officers and 201 men, the "riding establishment" 6 officers and 129 men. For cadres of ammunition columns there are maintained in peace 17 officers and 174 men.

The total number of horse artillery is as follows:

	Officers and men.
British Isles.....	3,074
Colonies other than India.....	531
India.....	1,923
Grand total.....	5,528

There are 50 brigades of light artillery organized in time of peace, comprising 150 batteries. In addition there are 9 batteries of mountain artillery and 12 batteries of heavy field artillery. The total of the light, mountain, and heavy, is thus 171 batteries. Although the mountain and heavy artillery is not carried in the station list as organized in "brigades," staffs exist for such organizations at the rate of 3 batteries to the brigade. In addition the mountain artillery is organized as a "division." There are also 6 "depots."

The strength of batteries varies. In the light artillery there are 21 batteries, with 5 officers and 164 men each, 66 with 5 officers and 137 men each, 18 with 4 officers and 87 men each, 33 with 5 officers and 174 men each, 9 with 5 officers and 147 men each, and 3 with 5 officers and 179 men each.

The "depots" each have 4 officers and 192 men.

There are also 13 ammunition columns, each having a strength of about 4 officers and 60 men.

Combining all the field artillery, including horse, we have its stations and numbers as follows:

	Batteries.	Officers and men.
British Isles.....	119	19,087
Colonies (other than India).....	9	1,383
India.....	71	14,179
Total	199	34,649

In addition there are in England 12,000 special reserves for the field artillery. This personnel is handled by the "training batteries." In war it brings the units up to war strength and may form new units.

The war strength of batteries is as follows: Horse batteries, 5 officers and 203 men; horse artillery light ammunition column, 4 officers and 214 men; "brigade" of horse artillery (headquarters, 2 batteries, and light ammunition column), 17 officers, 1 medical officer, 668 men, 12 guns. In addition 1 officer and 63 men are left at the immediate base as a first reenforcement.

Field batteries, light, have 5 officers and 198 men. Light ammunition column, 5 officers and 302 men.

The "brigade" of light artillery (headquarters, 2 batteries, and light ammunition column), 24 officers, 1 medical officer, 939 men, 18 guns. In addition 1 officer and 89 men are left at the immediate base as a first reinforcement.

The howitzer brigade (2 batteries, 12 guns, and light ammunition column) has a total of 24 officers, 1 medical officer, and 533 men. In addition 1 officer and 51 men are left at the immediate base.

The heavy field gun battery has 4 guns and a light ammunition column, with a total of 6 officers and 224 men. In addition 22 men are left at the immediate base.

The divisional ammunition column carries both artillery and small arms ammunition. It has a total of 19 officers, 1 medical officer, and 809 men. In addition 1 officer and 79 men are left at the immediate base.

REGULAR SIEGE ARTILLERY.

There are 3 companies, organized as a brigade, with a total of 20 officers and 608 men. These companies are all stationed in the British Isles.

The war strength of a battery of siege artillery varies between 5 officers and 124 men and 5 officers and 181 men, with additional men at the base, etc.

REGULAR COAST ARTILLERY.

As has been stated, this paper considers all of that portion of the "Royal Regiment of Artillery" not definitely known as field or siege artillery to be coast artillery. As a matter of fact, as has also been indicated, this is believed to be too great an allowance for the coast artillery. However, the figures are:

	Companies.
British Isles.....	34 and 4 "de-pota."
Colonies (exclusive of India).....	26
India.....	21

The "colonies other than India" include Gibraltar, Malta, Aden, Singapore, Hongkong, Capetown, and Bermuda, not to mention less important places.

The peace strength of companies varies greatly. Some have 4 officers and about 100 men, while others have as high as 7 officers and 230 or more men.

The total number of companies and strength on a peace footing is shown below:

	Companies.	Officers and men.
British Isles.....	34	6,578
Colonies (other than India).....	26	5,236
India.....	21	3,151
Total	81	14,965

In addition there are 43 officers and 1,440 men in the special reserve for that portion of "The Royal Regiment of Artillery" known as Garrison Artillery. The numbers of these belonging to the several classes of artillery are not definitely known.

REGULAR CAVALRY.

As a rule regiments have $\frac{1}{3}$ squadrons, the so-called "Household Cavalry" (3 regiments) have 4 squadrons to the regiment. It is understood that eventually there will be a "depot" for each regiment, but at present there are only 6 such organizations for the entire cavalry. The squadron conforms to the troop in the United States in that it is the lowest administrative unit, etc. It counts about 150 sabers in war and is commanded by a major—in this it follows the precedent set by the English field artillery.

There are, as a rule, 3 regiments to the brigade.

Four brigades in the British Isles are organized in peace, with probably 3 in India.

The total number of regiments is 31, with a total of 99 squadrons and 6 "depots."

The peace strength of regiments is as follows: Household regiments 24 officers and 408 men; regiments of the line at home, 23 officers and 673 men; colonies, 23 officers, 569 men; India, 27 officers, 594 men. The apparent reduction on foreign service is due to the fact that a small nucleus of men is left at home—this will not be the case after all regiments are provided with "depots."

Two depots each have 6 officers and 103 men, the other 4 each have 5 officers and 82 men.

The location and number of regiments and of officers and men is as follows:

	Regiments.	Officers and men.
British Isles.....	17	12,077
Colonies (other than India).....	5	3,023
India.....	9	5,616
Total.....	31	20,716

In addition there are 934 special reserves.

The war strength of cavalry is as follows: Squadron, 6 officers and 158 men, of whom probably 150 may be counted as sabers. The regiment has 3 squadrons, with a total strength of 24 officers, 1 medical officer, and 528 men. The strength in sabers of the regiment is about 475. In addition to the above figures 1 officer and 52 men are left at the immediate base as a first reinforcement.

REGULAR TECHNICAL TROOPS.

Technical duties, which in the United States pertain to the Engineers and to the Signal Corps, are performed by the Royal Engineers.

The company is the unit of organization, but higher officers than company commanders exist in due proportions.

The peace strength varies so greatly that no attempt is made to give details.

The following shows the number of officers and men and their distribution (10 depots and the permanent staff of the territorial force are included in the figures):

	Officers.	Men.
British Isles.....	501	6,844
Colonies (other than India).....	178	2,249
India.....	376	3
Total.....	1,055	9,096

In addition there are 1,287 special reserves.

The war strength of Engineers varies according to duty. The minimum strength of companies is about 3 officers and 106 men, the maximum 6 officers and 386 men.

REGULAR TRAIN TROOPS.

The army service corps supplies transport, provisions, fuel, and light to the army, and also has duties in connection with barracks, etc.

The peace strength is as follows:

	Officers.	Men.
British Isles.....	356	5,604
Colonies (other than India).....	100	712
India.....		
Total.....	456	6,316

There are in addition 1,000 men of the special reserve.

The war strength of the army service corps is not definitely known, but is very large.

REGULAR SANITARY TROOPS.

The peace strength is as follows:

	Officers.	Men.
British Isles.....	547	3,159
Colonies (other than India).....	157	882
India.....	324	
Total.....	1,028	4,041

In addition there are 1,000 men of the special reserve.

The war strength is not known.

REGULAR VETERINARY CORPS.

The peace strength is as follows:

	Officers.	Men.
British Isles.....	83	142
Colonies (other than India).....	20	81
India.....	61
Total.....	164	223

TOTAL PEACE STRENGTH, REGULAR ARMY.

	Officers and men.
British Isles.....	134, 339
Colonies (other than India).....	45, 215
India.....	75, 884
Total.....	255, 438

In addition there are 190 officers and 1,198 men employed with the special reserves, of whom there are 86,539.

There are also 138,000 men in the army reserve (in addition to special reserve).

It is thus apparent that England has an ample reserve with which to fill up her units upon mobilization.

Combining the strength of the forces with the colors and the trained reserves, we have as the *trained* force which England is able to mobilize as her *Regular Establishment* the following:

	Officers and men.
British Isles.....	360, 268
Colonies (other than India).....	45, 215
India.....	75, 884
Total.....	481, 365

GENERAL REMARKS ON REGULAR FORCES.

The study of England's forces now as compared to their condition before the Boer War reveals a vast advance.

Especially noteworthy are the measures she has taken to secure trained reserves for filling up her units on mobilization and the provision of officers and men of the regular service for duty with the territorial forces. On this duty there are 592 officers, 16 warrant officers, 2,302 sergeants, and 27 musicians and privates.

CONDITIONS OF SERVICE, REGULAR ESTABLISHMENT.

Service is voluntary. The enlistment period is usually for 12 years, of which a certain portion is passed with the colors and the remainder in the reserve. Service with the colors is usually 3, 7, or 8 years, depending on the arm of the service and other conditions.

TERRITORIAL FORCE.

As has already been mentioned, the territorial force more nearly corresponds to the Organized Militia of the United States than does any other foreign force.

The territorial force does not serve beyond the limits of the British Islands, except by its own consent.

Its organization corresponds exactly with that of regular divisions in so far as the proportions of the several arms is concerned. The total strength of units is, however, smaller. The total strength of a regular division is 21,600, whereas that of the territorial division is about 16,950. Since the proportion of the several arms is the same, the detailed composition is not considered here. There are organized in time of peace 14 divisions and 14 mounted brigades, besides certain units of coast artillery, etc. The total of the territorial force is 315,408.

COLONIAL TROOPS.

All of the colonies maintain bodies of native troops. Exact data as to the numbers and distribution among the several arms are lacking. In general, it may be said, however, that such forces are strong in infantry and police and weak in the other arms.

India has a native army of some 162,000 men, a portion of whom could doubtless be used outside of India.

The Canadian forces are divided into permanent and active militia. The combined peace strength of these two forces is as follows:

	Officers and men.
Infantry.....	43, 162
Field artillery.....	3, 719
Garrison artillery.....	2, 993
Cavalry.....	8, 567

The above represents authorized strength.

The total authorized strength of all arms and services is 62,037 for the active militia and 5,000 for the permanent force. Actually, the numbers are somewhat below those figures.

In addition there are reserves, under various names, to the number of 39,346. The law permits conscription both in peace and war.

The artillery listed as "garrison artillery" is probably two-thirds heavy field.

Reducing some miscellaneous organizations to terms of British units and assuming that one-half of the garrison artillery is heavy field and the remainder coast, we have as the organization of the principal branches the following:

Infantry.....	battalions..	97
Cavalry.....	squadrons..	104
Field artillery.....	batteries..	49
Coast artillery.....	companies..	17

Opinion as to the value of the Canadian forces differs. It is probably about as well trained as the Organized Militia of the United States.

ITALY.

The Italian military system is complicated. It is composed of the regular army, the mobile militia, and the territorial militia. The two latter categories are not constantly under arms, and in reality form a kind of reserve (Landwehr) into which men pass after service with the colors. Both the mobile and the territorial militia are composed of all arms of the service. The available data as to the strength of the militia are so conflicting as to make it impossible to give any reliable figures as to the composition and strength of the several arms of the service in those forces.

For these reasons this study will confine itself to the regular army and will consider the militia only as a reserve for bringing units up to strength on mobilization.

The regular army was reorganized in 1910. The law effecting this reorganization is available, hence the number of units and of officers given in this study is accurate. The detailed budget under this law is not, however, available. Moreover, there is a system in vogue of giving extensive (unlimited) periods of leave to the men so that the full number provided by the budget is always short (in men *actually* with the colors) by several thousand. The figures as to the total strength of the several arms are, therefore, to be regarded as approximate. Nevertheless, the figures given offer a very close approximation to the relative strength of the several arms.

HIGHER ORGANIZATION.

Commanders and staffs for four armies exist in time of peace.

There are 12 army corps, 25 divisions, and 3 cavalry divisions organized in peace..

The general officers are as follows: Five generals, 49 lieutenant generals, 97 major generals, and 4 medical officers with rank of general officer.

INFANTRY.

The typical formations are 4 companies to the battalion, 3 battalions to the regiment, 2 regiments to the brigade, 2 brigades to the division. Battalions of "Bersaglieri" and "Alpine troops" have 3 companies each, while regiments of these troops have 3 or 4 battalions.

Apportioning all existing organizations among the 12 army corps would give $114\frac{1}{2}$ companies to the corps.

There are 51 brigades, 116 regiments, 362 battalions, 1,374 companies.

Each regiment has a "depot."

Under the new law the total number of infantry officers is 7,189.

A close approximation to the total number of officers and men of infantry is 167,000 for the peace footing.

The war strength of units is difficult to estimate. A considerable part of the infantry is composed of cyclists and of Alpine troops. The war strength of these organizations runs from 120 to 150 men per company. On the other hand, the infantry of the line probably numbers 250 men to the company. The maximum war strength of the army corps is about 25,000 infantry rifles.

ARTILLERY.

All artillery officers are on one list. The organization is somewhat complicated, no less than 13 separate establishments appearing in the new law.

The main subdivisions are the field artillery and the fortress artillery. The latter is composed of coast artillery and of fortress (land) artillery proper.

There are 9 headquarters of field artillery and 5 of fortress. These headquarters correspond to brigades.

The total number of officers of artillery under the new law is 2,242. The law provides that the increase in captains shall be made gradually so as to be complete July 1, 1912. Dividing the artillery among the several classes we have:

FIELD ARTILLERY.

There are 36 regiments of field artillery, with 72 battalions, 193 six-gun batteries, 36 train companies, and 36 depots (train companies form light ammunition columns). There are 2 regiments of heavy field artillery, with 10 battalions, 20 batteries, and 2 depots.

There is 1 regiment of horse artillery, with 4 battalions, 8 batteries, 4 companies of train and 1 depot.

There are 2 regiments of mountain artillery, with 8 battalions, 24 batteries, and 2 depots.

Totaling the above, we have: Forty-one regiments, 90 battalions, 245 batteries, 40 train companies (light ammunition columns), 41 depots.

At least a portion of the depots are used in connection with the mobile militia. In addition to the above, there are various remount establishments, "directorates," etc. These organizations are fixed under the law by royal decree, but no definite data are available. It

will be seen that, deducting 6 batteries for the 3 cavalry divisions, about 20 batteries are available for each of the 12 army corps.

If the heavy batteries have 6 guns each, the number of guns per corps would be about 120.

The peace strength of batteries is not definitely known. The Italian artillery is being rearmed with modern guns and the strength of organizations somewhat increased.

Under the old organization the strength of batteries varied between 3 officers and 90 men and 4 officers and 141 men.

The total peace strength is about 27,000 officers and men and is probably being increased.

The war strength probably follows the German organization, at least for the new matériel, viz, 5 officers, 150 men.

COAST ARTILLERY.

There are 3 regiments of coast artillery, with parts of 2 regiments of fortress artillery actually employed as coast artillery.

The total number of companies of coast artillery, including those of fortress artillery employed as coast artillery, is 41.

The peace strength of companies is 3 officers and 107 men. The total peace strength of the coast artillery, including headquarters detachments, is about 5,000 officers and men.

The war strength of companies is 5 officers and 200 men.

FORTRESS ARTILLERY.

There are 7 regiments, but parts of 2 of these regiments are actually employed as coast artillery.

The total number of companies actually employed as fortress artillery is 57.

One regiment of fortress artillery is supposed to be trained as siege artillery (the Tenth).

The regiments of fortress artillery are the Sixth, Seventh, Eighth, Ninth, and Tenth; the Third and Fifth are the mixed regiments.

The peace strength of companies is 3 officers and 107 men.

The total peace strength of fortress artillery, including detachments, is about 6,500 to 7,000 officers and men. The war strength of companies is 5 officers and 200 men.

According to Veltze, matériel exists at Alessandria, Mantua, and Pianezza for forming 3 groups of 9 batteries each of mobile artillery.

CAVALRY.

There are 8 brigades with 29 regiments and a certain number of depots.

The total number of cavalry officers under the new law is 985.

In peace each regiment has 5 squadrons with a nominal strength of 4 officers and 155 men each. The total peace strength is thus about 24,000 officers and men.

It appears that in war each regiment would have 6 squadrons with 5 officers and 133 men each, counting 120 sabers.

TECHNICAL TROOPS.

The engineers have various establishments, headquarters, etc.

There are 6 regiments, 24 battalions, 79 companies, 6 depots. The total number of engineer officers is 610.

The peace strength varies, the usual strength is 3 officers and 110 or 120 men per company.

The total peace strength is about 11,000 officers and men.

In war, companies have from 200 to 250 officers and men.

SUPPLY TRAIN.

There is one company for each of the 12 army corps. The total peace strength is about 2,500 officers and men. The war strength is unknown.

SANITARY TROOPS.

The new law provides 763 medical officers. According to the *Almanach de Gotha* the number of noncommissioned officers and men of the Sanitary Corps in 1909 was 3,729.

GENDARMES.

The police might, in war, be employed to a limited extent. Some authorities go so far as to think they would all be so employed. They actually form an integral part of the army.

There are 12 so-called legions, with 671 officers and about 26,000 men. About 4,000 of these men are mounted. The remainder are dismounted. It is probable that in war the carbineers would mobilize one infantry brigade, numbering about 7,000 officers and men.

GENERAL REMARKS.

In addition to the troops enumerated there are numerous special formations, schools, etc.

As has already been indicated, many of the "depots" are supposed to be used in connection with the mobile militia.

For example, it is supposed that no fewer than 672 officers and 8,640 men of the regular infantry, already enumerated, are used for the mobile militia.

TOTAL PEACE STRENGTH.

The total peace strength of the regular army in 1909-10 was 13,942 officers and 274,467 men, but it is doubtful if more than 250,000 men were actually with the colors at any one time.

TOTAL WAR STRENGTH.

The complex system and the custom of giving indefinite leave to untrained men render it difficult to estimate Italy's strength in fully trained men. On paper she could mobilize 3,500,000 men. A conservative estimate would seem to be 1,500,000 *fully trained* men.

Assuming that the *initial* mobilization would be confined to existing organizations of the regular service, the fighting strength of the three arms on *initial* mobilization would be:

Infantry rifles.....	300,000
Cavalry sabers.....	20,880
Field guns (with probably an additional 162 heavy field guns manned by fortress artillery).....	1,470

COLONIAL TROOPS.

In addition to the troops already mentioned, Italy maintains in her African possessions 132 officers and 4,530 men; of the latter, 660 are Italians and the remainder natives.

CONDITIONS OF SERVICE.

Service is compulsory, and liability extends from the twentieth to the thirty-ninth year of the citizen's life. Service with the colors is nominally for three years, but as the budget is seldom sufficient, many men are released with one or two years' training. These pass from the colors to a form of leave status, in which they serve to complete a total period in the regular army of eight or nine years.

The men then pass into the mobile militia, from whence they go into the territorial militia. During their stay in the category of the "*congé illimité*," as well as in the militia, the men are subject to calls for instruction—30 days per year for the leave status and mobile militia, 30 days in 4 years for territorial militia. Actually, training periods for the militia have, due to insufficient budgets, only been undertaken since 1909.

MEXICO.

HIGHER ORGANIZATION.

There is no organization, at present, higher than the regiment in time of peace. Divisional organization is said by some authorities to be in contemplation. General officers are now provided as follows:

Generals of divisions.....	7
Generals of brigades.....	41
Brigadier generals.....	55

INFANTRY.

All organization in Mexico is somewhat peculiar. The underlying idea of Mexican organization is to arrange for the maximum possible expansion in war.

The battalion has 4 companies. Regiments of infantry do not exist in peace, but battalions are commanded by colonels, with a full regimental staff. In war each battalion forms an additional battalion, thus constituting a regiment of 2 battalions.

In peace there are 30 battalions; in addition there are 4 skeleton battalions (2 companies each) and 2 regional companies.

The peace strength of the company proper is 9 officers and 145 men.

The total infantry strength in peace is 1,182 officers and 19,144 men.

The war strength of regiments is 47 officers and 1,745 men. The exact number of rifles in the regiment is unknown. The total infantry strength in war is 3,100 officers and 53,706 men.

FIELD ARTILLERY.

The artillery in peace has 2 batteries to the battalion and 2 battalions to the regiment. There are in peace 1 regiment (4 batteries) of mountain artillery, 1 regiment (4 batteries) of horse artillery, 2 regiments (8 batteries) of light artillery, and in addition a so-called "squadron" of rapid-fire guns. There is little definite information concerning this latter organization; an inspection of the army list would indicate that it is the skeleton organization of another regiment of mountain artillery. The total number of batteries on the peace footing is therefore 16, with, in addition, the skeleton organization just referred to. Batteries each have 6 guns, except horse batteries, which have 4.

The peace strength of batteries varies between 6 officers and 79 men and 8 officers and 120 men, except that mountain batteries each have 10 officers and 88 men. The total peace strength is 1,912 officers and men.

The expansion in batteries on mobilization is as follows: The mountain artillery doubles, other regiments each form 2 additional batteries. The "squadron" is doubled in personnel and has 32 guns.

The total war strength is 3,142, with 176 guns.

In addition there are ammunition columns, the strength of which is not known.

COAST ARTILLERY.

There are a few minor and unimportant detachments of coast artillery. No definite data are available.

CAVALRY.

In peace 4 troops form a regiment at full peace strength, and 2 troops form a regiment at skeleton strength.

Troops have two peace footings—skeleton and full peace. The respective footings are 6 officers and 72 men and 8 officers and 105 men.

There are 14 regiments and 4 skeleton regiments.

The total peace strength is 496 officers and 6,822 men.

In war each regiment has 6 troops.

The war strength of troops is 5 officers and 140 men; the exact number of sabers counted is not known.

The total war strength is 548 officers and 14,016 men.

TECHNICAL TROOPS.

There are a number of miscellaneous organizations totaling 56 officers and 601 men.

The war strength is about 100 officers and 1,000 men.

TRAIN.

The peace strength is 9 officers and 206 men. The war strength is not known.

SANITARY TROOPS.

No exact data are available.

REMARKS ON TROOPS.

In addition to the troops noted, there are 12 regiments of rurales (police) of 250 men each. There are also some miscellaneous organizations.

TOTAL PEACE STRENGTH.

The total peace strength is between 31,000 and 32,000.

TOTAL WAR STRENGTH.

Aside from new organizations, Mexico's total war strength may be reckoned at about 100,000 officers and men.

CONDITIONS OF SERVICE.

In theory, service is compulsory. Actually, it is not so, except, perhaps, for some of the lower and of the criminal classes.

It is probable that conscription would be resorted to upon mobilization.

NOTE: Since the above was prepared information has been received indicating that all skeleton organizations have been expanded to the usual footing. Whether this is temporary or not is not definitely known.

JAPAN.

The rapid progress of Japan as a military nation, the secrecy maintained by her concerning reserves, territorial organizations, etc., as well as the system of training Japanese school children in the rudiments of drill and military discipline, make it extremely difficult to make an accurate inventory of the Japanese military resources. This study is then to be regarded as showing the *minimum* forces which Japan has available, for it will confine itself to those forces which are definitely known to be available.

As indicating the constant and rapid progress made by Japan in preparation for war, it may be mentioned that in the period from 1894 to 1904 Japan's fully trained force about doubled. Still more striking is the fact that the trained force which she is able to put into the field to-day is at least double that which she had available at the period of the Russo-Japanese War.

HIGHER ORGANIZATION.

The division is the highest permanent organization in time of peace. There are, however, 11 generals and 22 lieutenant generals, besides other officers, available for the command and staff of such armies as may be formed in war. There are 19 divisions organized in peace. In addition there are certain special organizations outside the Japanese islands proper. In these special organizations the regiment is the highest unit, except that the Korean troops are organized into an infantry brigade. Including the brigade just referred to, there are 39 brigades, 4 cavalry brigades, and 3 field artillery brigades organized in peace. The normal composition of a division is: Two brigades of infantry, 1 regiment of cavalry, 1 regiment of field artillery, and the necessary auxiliary troops. Brigades of cavalry and of field artillery appear to be assigned to divisions in time of peace. There are also 11 mountain batteries which are apportioned among the divisions in peace.

INFANTRY.

There are 4 companies to the battalion, 3 battalions to the regiment, 2 regiments to the brigade. There are 80 regiments, 4 of which are special troops (already mentioned), with 247 battalions. Seven of the battalions are not assigned to regiments; of these 7

battalions, all except 1 belong to the special troops. The peace strength of regiments is 80 officers and 1,734 men. The total peace strength is 6,547 officers and 142,855 men. It is understood that the mobilization plan upon which Japan is working contemplates the organization of a duplicate for each battalion maintained in peace and also a depot for each regiment. This doubling does not apply to the special troops. It is not believed that these reserve organizations have been completely worked out.

There are 229 battalions in the army proper; assuming that the arrangements for increasing the number of battalions have been completed, mobilization would see 456 battalions and 76 depots, besides 18 special battalions. The special battalions would probably not be available, unless the theater of war were in the territories in which they are stationed.

The number of men per battalion upon mobilization is variously estimated. The maximum of these estimates would give the battalion about 1,000 rifles, while the minimum would give it about 900. In view of what was done in the Russo-Japanese War, it is believed that, notwithstanding the increased number of organizations, the estimate of 1,000 rifles to the battalion on the war footing is about correct.

It would thus appear that Japan can mobilize 456,000 fully trained infantry, in addition to 18,000 special troops and 76,000 in depots.

ARTILLERY.

All Japanese artillery officers are on one list. A portion of the artillery (heavy) is now reorganizing. This latter artillery is partly mobile and partly coast. It is practically impossible to separate the heavy artillery into classes. This study will therefore consider all heavy artillery under one heading.

FIELD ARTILLERY.

The German system—6 guns to the battery, 3 batteries to the battalion, 2 battalions to the regiment—is followed.

There are 25 regiments, with 3 separate battalions, giving a total of 161 batteries; 2 of these batteries belong to the special troops. The 3 separate battalions, 11 batteries, are mountain battalions.

The peace strength of batteries is 5 officers and about 120 men. The regimental strength is 42 officers and 662 men. The total peace strength is 1,114 officers and 17,804 men. The field artillery on mobilization undergoes a similar expansion to that already noted for the infantry. The completed project would see 322 batteries of 6 guns each available. According to some authorities the artillery expansion has not yet been completely worked out, so that at present

only 100 additional batteries would be formed on mobilization. This would mobilize 261 six-gun batteries. The war strength of batteries is 5 officers and 154 men each. The strength of light ammunition columns is not definitely known, but is probably identical with that of the Germans—4 officers and 188 men.

HEAVY ARTILLERY.

As already noted, this branch is being reorganized and there is considerable uncertainty regarding all its phases. That this branch furnishes heavy field, siege, and coast artillery is definitely known. It is also known that there are in existence 6 regiments with a total of 32 companies and 10 independent battalions with 23 companies, making a total of 55 companies.

All authorities appear to agree that this artillery is being increased.

Like the field artillery and the infantry, this branch expands in war. Indications point to 116 batteries as the number that would be mobilized under present conditions. The division of these batteries into the several classes can not be given with any assurance. It is believed, as an approximation, that Japan would endeavor to accompany each 1,000 rifles with one heavy field gun; this, of course, is in addition to the field artillery already noted.

CAVALRY.

The scarcity of horses in Japan, the great demands on the available supply, and the expense of maintenance of cavalry have combined to retard the development of this arm.

There are 27 regiments with a total of 97 squadrons. The peace footing of squadrons is about 5 officers and 136 men.

The total peace footing is 663 officers and 13,922 men.

In war it is supposed that each regiment would form a reserve regiment of two squadrons and, in addition, a depot squadron. The war strength of squadrons is but slightly greater than that in peace.

The total war strength in sabers, exclusive of reserve organizations, may be reckoned at 14,550.

TECHNICAL TROOPS.

There are 19 battalions of engineers of 3 companies each.

The peace strength of battalions is 21 officers and 374 men each.

There is also a "communication brigade," consisting of 1 railway regiment, 1 telegraph section, and 1 balloon section. The peace strength of the engineers proper is 399 officers and 13,490 men.

The peace strength of the railway troops is 75 officers and 2,100 men. The strength of the telegraph section is 38 officers and 625 men. The strength of the balloon section is unknown.

Each battalion of engineers forms an extra battalion in war as well as a depot company. The war strength of battalions is about 660 men.

The total war strength, including railway and telegraph troops, is about 32,862 officers and men.

TRAIN.

The train troops are organized into battalions of 2 companies each. On the peace footing there are 19 battalions of 2 companies each; 1 battalion is assigned to each division. The peace footing of battalions is 17 officers and 596 men. The total peace strength of the train is 303 officers and 17,124 men.

The train expands enormously in war; some authorities state that each battalion in war forms an extra company. The war strength of companies is probably 10 officers and 880 men.

The total war footing is not accurately known. Various authorities indicate that the war strength of the train of the 19 divisions existing in peace is about 51,000 officers and men.

SANITARY TROOPS.

In 1910, the Japanese Army list shows 1,247 sanitary officers. The present strength in sanitary men is not known. As an indication, it may be noted that in 1906 there were 2,202 men with 1,282 officers. As the strength in officers has not materially changed since 1906, it may be assumed that the present strength in men is about 2,200.

The war strength is unknown.

VETERINARIANS.

The army list for 1910 shows 229 officers.

REMARKS ON TROOPS.

Besides the troops above mentioned, there are a number of special organizations, schools, gendarmes, etc. The number of officers of intendance borne on the 1910 army list is 999.

TOTAL PEACE STRENGTH.

The peace strength is variously estimated. It is certain that it is *at least* 230,000 men, and it is possibly more.

TOTAL WAR STRENGTH.

As already indicated, there is some difference of opinion as to the extent to which the ultimate plan of mobilization has been developed. Bringing the existing organizations to the war footing, ignoring

special troops and reserve organizations, would give a fighting strength of the three arms about as follows:

Infantry rifles.....	228,000
Cavalry sabers.....	14,550
Field guns (with possibly 228 heavy field guns in addition)	954

If we assume that the plans for mobilization have been completed, the above figures for infantry rifles and field guns would be doubled, while the cavalry would be increased by about one-half.

There are at least 1,000,000 *fully trained* reserves subject to call on mobilization.

O

